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ABSTRACT

The warming ability of skin has been measured by thermometer, which sensor was cooled upto 17-18 deg.C before its contact with skin.

The warming rate of thermometer during its 30sec contact with forearm skin depended on position of the sensor of that thermometer: the warming was faster over pulsation of a.radialis in compare to its position on the back of the wrist. Besides, the warming rate on former position (i.e. over-artery position) well-correlated with the body surface area ($r=0,65$) and pulse pressure ($r=0,58$), whereas there were no any correlations of results obtained from latter position (i.e. back of the wrist).

The bioheat transfer, as the reason of abovementioned warming over-artery position, was provided by blood flow within a.radialis, i.e. forced convection. Thus, through assessment of warming rate of cooled thermometer over a.radialis pulsation and application of the laws of thermodynamics we can measure cardiac output of the human body.

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